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WORLDVIEWS 26 (2022) 242–248

WORLDVIEWS

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Deep Time and Environmental Ethics

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Abstract

This paper employs the concept of deep time to supply a philosophical argument about the kind of environmental ethics required in the present. Considerations from the evolutionary past are deployed to support the intrinsic value of health and well-being in addition to that of pleasure. The well-being of a species is held to consist in that of its individual members, past, present and future. Duties to species accordingly include promoting the well-being of future species members, since the impacts of human actions in a technological age are spread out across the future. These impacts include impacts on non-human species after humanity has become extinct; if these impacts matter, then a non-anthropocentric ethic is needed to explain why they do, since an anthropocentric ethics is incapable of explaining this.

Keywords

evolutionary past – intrinsic value – the content of well-being – the posthuman future – a biocentric ethical theory

1 Introduction

Explorations into deep time, both past and future, will be shown to help to shape a theory of environmental ethics that takes into account both evolution and future prospects. The evolutionary past is found to suggest and support a broad theory of intrinsic value (a concept explicated below). Also the prospect that there will be a posthuman future inhabited by a diversity of non-human creatures, and that current actions can affect the range of species that survive humanity, helps to shape the kind of ethic that current agents should adopt.

For the influence of current actions is highly likely to extend past the human future to the epoch beyond it, and this suggests that our responsibilities also extend to the period beyond human history. Thus the biodiversity of the past and that of the future are argued to have a bearing on the environmental ethics of the present.

2 The Bearing of Deep Time on the Scope of Intrinsic Value

Which states of affairs are valuable in themselves rather than derivatively, or valuable intrinsically rather than extrinsically? The lessons of evolution, and thus of the deep time of the past, nudge us towards a relatively comprehensive view. There is a debate between those who hold that intrinsic value is limited to conscious states such as pleasure and preference-satisfaction only, and those who also include objective states such as health and well-being. But all or nearly all parties hold that at least pleasure has intrinsic value and that pain has intrinsic disvalue.

John Nolt has recently drawn attention to some relevant lessons from evolution. Our evolutionary cousins of the animal kingdom have learned from pleasure and pain over the centuries in ways that promote their own well-being or that of their species, whether through eating food for vitality, or through sex, which generates new lives, or through avoiding poisons, and thus pains, and conveying pain avoidance to their descendants, which promotes their and their descendants' health and well-being (Nolt 2015, 131, 175). So pleasure and pain have extrinsic value (and disvalue) as well as intrinsic value (or disvalue), and have long had the biological function of promoting well-being. This suggests that what is valuable in their lives is not only sentience and pleasant experiences, but also their well-being and health, and that the same applies to the lives of human beings (Nolt 2015, 175). While this argument from deep time and evolutionary functions is not conclusive, it is still suggestive of the view that the broader theory should be preferred.

We can approach this question in another way. What is intrinsically valuable is what there is reason to pursue or promote for its own sake, rather than for the sake of attaining some further good (instrumental value), or for the sake of expressing some independent value symbolically (symbolic value). But there is reason to promote health and well-being for their own sake, and not only for the positive experiences that they facilitate. Thus the point of covid injections is not pleasant experiences but improved health. Contemporary behaviour thus confirms the lessons that Nolt reasonably draws from evolution and the past.

3 The Well-Being of Species

Before issues about the well-being of species are considered, it may assist the reader to discover which species are in question, and which ones have members with states that are intrinsically valuable. These are those species whose members have a good of their own, whether or not they also benefit humanity. With Kenneth Goodpaster, I would contend that such are all the species whose members are capable of health and well-being (Goodpaster 1978, 308–325), and accordingly that the species in question are not limited to sentient animals, but also include primitive animals lacking nervous systems, plants, funguses and bacteria as well; in fact, all creatures capable of growth, of self-maintenance and of preserving the form and the functioning that are characteristic of their kind. Philosophers who limit the scope of moral consideration to sentient creatures (sentientists) thereby omit from such consideration all the many species whose members also have a good of their own, as if they were incapable of being harmed or benefited.

The well-being of species, as opposed to individuals, remains to be spelt out. Some theorists hold that species have a well-being that is greater than that of their members, while others, like Nolt and myself, hold that it consists simply of the well-being of their members, if enough members are considered. To reflect on this question, we need to bring in both the past and the future (and sometimes the distant future). For there must be more to the well-being of species than the well-being of their *current* members, as emerges if we reflect on the possibility that the species might become extinct with the deaths of all the current members, or rather of the last of the current members. This would clearly be bad for the species, even if all of its members had led flourishing lives.

As Nolt comments, the view that there is no more to the well-being of a species than the well-being of its current members omits the well-being of its *future* members (Nolt 2015, 189). Thus the well-being of a species consists in that of its members, past, present and future. Further, as Nolt goes on to say, what the premature extinction of a species does to that species is to eliminate the well-being that would have been enjoyed by its members from the time of the premature extinction to the time that it would otherwise have gone extinct (Nolt, 2015, 189). Once the well-being of such possible future species-members is included, there is nothing more to add; we now have a grasp of the good of the species across time. For in the absence of members, a species is a mere abstraction, with no good of its own. There are no duties to species that are not owed to past, present, and/or future members; and while their well-being has intrinsic value, saying this amounts to saying that the well-being of their past, present and future members has value of this kind.

4 Duties Extend to Non-human Species

Conversely, we need to take account of the future before we can discover our duties or obligations to a species, and to the human species not least. For we can make foreseeable differences to future generations, both human and non-human; and neglecting to consider such impacts distorts our understanding of what we should do in the present. Aristotle once wrote, in his *Nicomachean Ethics*, that when we assess whether a person's life has been a felicitous or a comprehensively happy one, we cannot include events happening after that person's death, because that would make the reckoning unduly complex (Aristotle 2000, Book I, chapters 10 and 11); yet his disregard for post-mortem events, including impacts of that person's life on the next few generations, seems misguided, even at the time when he wrote it. However, at that time, as Hans Jonas has written, the impacts of human action were seen as affecting almost exclusively the human contemporaries of the agent (Jonas 1984), and any long-term outcomes could apparently be disregarded as serendipitous and unpredictable side-effects. But at least nowadays, because of technology, the impacts of a great deal of human action have to be recognised as affecting large swathes of the biosphere and future generations for many centuries to come (Attfield 2009). Besides (we might add), anthropogenic climate change is disrupting many ecosystems and driving numerous species to migrate polewards, such that they often run out of habitats as they do so. And while Jonas may not have been aware of influences such as this one, he was well aware of human impacts on wetlands, watersheds, rivers and oceans.

This recognition led Jonas to reject any form of anthropocentric ethic. Jonas was aware of the many ways in which technology and the spread of human settlements are affecting non-human species and their prospects of survival into the future, and felt that the scope of ethical concern should expand to match this increased sphere of influence and impact. While he was greatly concerned about the human future, his concern was not limited to that (Jonas 1984). Certainly if non-human creatures are regarded as having moral standing, as was argued by Goodpaster (Goodpaster 1978), then the case for this expansion of ethical concern is compelling (Attfield 2020).

It has already been argued that it is individual living creatures that have moral standing (or warrant moral consideration) and not the species to which they belong. In my own view the same applies to ecosystems. For ecosystems have no clear spatial boundaries, nor persisting criteria of identity. Indeed the term 'ecosystem' was devised by Sir Arthur Tansley to refer to associations of living and non-living entities that were not to be regarded as organisms (or as

organism-like) themselves (Tansley 1935; Nash 1989, 57–58). Besides, all their living components or constituents have moral standing already, and to treat eco-systems as having moral standing in addition to these constituents would involve unnecessary double counting. Hence, like Nolt, I reject the view that either species or ecosystems have moral standing of their own (ecocentrism), as opposed to the view that moral standing belongs to all living creatures, future creatures included (biocentrism).

5 Ethics and the Post-human Future

Concern has been widely expressed about what is called ‘the Anthropocene’, or the period in which humanity has become the predominant influence on the surface of our planet. However, less concern has been expressed about the impact of human-generated extinctions on the distant future. But, as Kirchner and Weil have argued in *Nature*, ‘Today’s anthropogenic extinctions will diminish diversity for millions of years to come’ (Kirchner and Weil 2000, 177–180).

These extinctions could well still be having an effect when humanity itself becomes extinct. Human extinction, it goes without saying, should be avoided if at all possible, to prevent (inter alia) the disappearance of human history and human culture. But, that said, it by no means follows that our moral concern should be limited to the period of human existence, as if we could say, echoing Louis XVI, ‘Après nous, le deluge’ (After Us, the Flood) (<https://idioms.thefreedictionary.com>). Some reflection should, I suggest, be given to the impacts of present actions and policies on the period after humanity becomes extinct.

For there are many species that could survive into that period, and flourish in it, but which could instead become extinct through human action in the near future. Now if we are focussing on the human future, then conventional, human-centred ethics can maintain that these extinctions are made wrong by their impacts on ourselves and on our successors, who are deprived of objects of scientific inquiry and of aesthetic appreciation. But if, instead, we focus on the post-human future, and the period of reduced biodiversity that would ensue if anthropogenic extinctions proceed at the current rate, then, as Nolt remarks, anthropocentric ethics has nothing to say, as there are no *human* rights or interests to consider (Nolt, 2015, 204). If there is anything bad about the reduced biodiversity of this post-human period, only a *non*-anthropocentric theory can explain it, and say why this reduction should have been prevented much earlier when human beings who could have prevented it were still alive.

But granted that human behaviour could make a difference to the extent of the biodiversity of the post-human period, it appears unconvincing to claim that just because there are no longer human beings around to regret or bemoan the absence of species that their predecessors used to experience, there is nothing for anyone to bemoan at all. For if we take measures to preserve rainforests and temperate forests, and to preserve or re-seed coral reefs, and to establish maritime sanctuaries, and take further measures to reduce oil pollution in our oceans, plastic pollution on our continents, and greenhouse gases in our atmosphere, then we could at least mitigate species loss across the foreseeable future, to such an extent that the entire future would be positively affected. There are grounds based on human interests for such measures, but when we focus on the post-human period, it emerges that we have almost certainly further grounds to avoid the elimination of creatures that could have enjoyed life in that human-free epoch.

Thus consideration of the post-human future strongly suggests that we need an ethic that transcends one that is anthropocentric and takes a non-anthropocentric form, and one that, in the light of what was argued earlier about the reducibility of appeals to the good of species, is *biocentric*. A biocentric ethic appeals to the good of living creatures in general, but, unlike ecocentrism, does not additionally appeal to the good of species or of ecosystems. The good of all the members of all the planetary species and of all the planetary ecosystems has been taken into account by biocentrism already, and there is no reason to count them again as components of species or as participants in ecosystems, as is implicitly done by ecocentrists such as Holmes Rolston (see Rolston 1983). We should by all means attempt to understand how species preserve themselves and how ecosystems function, because only in these ways shall we manage to preserve their valuable members. But this does not mean that species or ecosystems are *independent* focuses of moral concern.

So it turns out that reflection on the evolutionary past and on the posthuman future throws light on the adequacy of ethical approaches in the present, and that only when we consider their trajectory across time can we understand what the good of species consists in. The scope of intrinsic value should not be confined to subjective states such as pleasure and preference-satisfaction, but should extend to objective states such as well-being as well. And the range of organisms whose well-being should be taken into account should not be confined either to human beings, or to creatures with sentience and thus with subjective states, but recognised to include all living creatures (including plants), since all have a good of their own which they seek to defend and to propagate.

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